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10/581,572

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Friedrich Lehr

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12/05/2008

CLARIANT CORPORATION  
INTELLECTUAL PROPERTY DEPARTMENT  
4000 MONROE ROAD  
CHARLOTTE, NC 28205

EXAMINER

ELHILO, EISA B

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                                      |  |  |
|------------------------------|--------------------------------------|--|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/581,572 | <b>Applicant(s)</b><br>LEHR, FRIEDRICH |  |
|                              | <b>Examiner</b><br>Eisa B. Elhilo    | <b>Art Unit</b><br>1796                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 02 June 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

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Claims 1-17 are pending in this application.

### **DETAILED ACTION**

#### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 6, 9-12, 14 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Moells et al. (DE 2508246 A).

Moells et al. (DE' 246 A) teaches a process for removing water-soluble ionic compound from aqueous solutions using ultra-filtration and wherein the ionic compound is Direct Blue 78 having a formula identical to the claimed formula (I) (see STIC Search Report at page 48, the abstract and page 49, the formula), when in the claimed formula (I), R5 represents -NH-C<sub>6</sub>H<sub>5</sub>, R6 represents a hydrogen atom, KK2 represents unsubstituted naphthylene, KK1 represents naphthylene substituted with SO<sub>3</sub>H group and DK represents a phenyl group substituted with SO<sub>3</sub>H radical as claimed in claims 1-2, 9 and 14. The aqueous solution also comprises compounds of water-soluble salt carrying a charge opposite to that of the ionic dye as claimed in claim 6 (see English abstract of the Patent DE 2508246 A), wherein the aqueous composition further comprises additional anionic dyes of Acid Blue 117 and Acid Blue 40 as claimed in claims 10-12 (see page 8 of the DE' 246 A), wherein the dyes are used in the textile as claimed in claim 16 (see STIC Search Report at page 48, the abstract). Moells et al. teaches all the limitations of the instant claims. Hence, Moells et al. anticipates the claims.

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***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moells et al. (DE 2508246 A) in view of Misawa et al. (US 5,739,298).

The disclosure of Moells et al. (DE' 246 A) as described above, does not teach or disclose a process for removing water-soluble ionic compound from aqueous solutions using ultra-filtration and wherein the ionic acid dye is Direct Blue 71 as claimed in claims 3-4.

However, (DE' 246 A) teaches and discloses the ionic acid dye Direct Blue 78 and other acid dyes (see page 8).

Misawa et al. (US' 298) in analogous art of water-soluble azo compounds, teaches the equivalence between Direct Blue 71 and Direct Blue 78 (see col. 8, line 64).

Therefore, in view of the teaching of the secondary reference, one having ordinary skill in the art would be motivated to modify the process of Moells et al. by utilizing Direct Blue 71 to arrive at the claimed invention because Moells et al. as a primary reference teaches a process utilizing Direct Blue 78. Misawa et al. as a secondary reference clearly teaches the equivalence between Direct Blue 71 and Direct Blue 78 and, thus, a person of the ordinary skill in the art would be motivated to utilize Direct Blue 71 as taught by Misawa et al. in the process of Moells et al. as an equivalent species and, would expect such a process to have similar properties to those claimed, absent unexpected results.

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3        Claims 5, 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moells et al. (DE 2508246 A) in view of Michna et al. (US 5,145,485).

The disclosure of Moells et al. (DE' 246 A) as described above, does not teach or disclose a process for removing water-soluble ionic compound from aqueous solutions using ultra-filtration wherein the dye solution is mixed with cationic alkanolamines or triethanolammonium compounds.

However, Moells et al. (DE' 246 A) teaches and suggests that the aqueous solution also comprises compounds of water-soluble salt carrying a charge opposite to that of the ionic dye (see English abstract of the Patent DE 2508246 A).

Michna et al. (US' 485) in analogous art of the preparation of stable dyestuff formulation, teaches a process comprising the addition trialkylammonium salt as a cationic compound as claimed in claims 7-8 (see col. 1, lines 49-52) and wherein the aqueous dye solution is maintaining at appropriate concentration (see col. 1, lines 40-45).

Therefore, in view of the teaching of the secondary reference, one having ordinary skill in the art at the time the invention was made would be motivated to utilize such a process by incorporating trialkylammonium salts as cationic compounds as taught by Michna et al. in the formulation of Moells et al. and to maintain the aqueous dye solution at appropriate concentration to arrive at the claimed invention because Moells et al. as a primary reference clearly teaches the addition of cationic compounds to the acid dyes. Michna et al. as a secondary reference clearly teaches and discloses the addition of trialkylammonium salts as claimed, and, thus, a person of the ordinary skill in the art would be motivated to incorporate these salts in the

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aqueous dye solution at appropriate concentration and would expect such a process to have similar properties to those claimed, absent unexpected results.

4 Claims 13, 15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moells et al. (DE 2508246 A).

Moells et al. (DE' 246 A) teaches dyes that used in the textile (see STIC Search Report at page 48, the abstract).

The instant claims differ from the reference by reciting a method for dyeing fibrous materials (cellulosic textile) or wood.

However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize such a process for dyeing wood (cellulosic textile) to arrive at the claimed invention. Such a modification would have been obvious because the reference clearly teaches similar dyeing compounds that obtained with a similar processes and wherein the dyeing compounds are used in textile materials (see STIC Search Report at page 48, the abstract), and, thus, a person of the ordinary skill in the art would be motivated to utilize these dyes for dyeing textile materials such as cellulosic fibers (wood) and would expect such a process to have similar properties to those claimed, absent unexpected results.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eisa B. Elhilo whose telephone number is (571) 272-1315. The examiner can normally be reached on M - F (8:00 -4:30).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pyon Harold can be reached on (571) 272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Eisa B Elhilo/  
Primary Examiner, Art Unit 1796  
December 4, 2008